

Report on Tobacco

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Two studies on tobacco methods were conducted during the year. The Associate Referee on humectants submitted a revised method to collaborative test, and the study on the determination of tar and nicotine in cigarette smoke was continued. Because of the amount of work involved in these 2 studies, no collaborative work was done on methods for nitrates in tobacco. The revised GLC method for propylene glycol, glycerine, and triethylene glycol gave considerably improved precision for the first 2 humectants listed. The precision for triethylene glycol was similar to that obtained last year, *JAOAC* 53, 655-658 (1970). All interlaboratory standard deviations were in the 0.05-0.1% range except for the samples with high levels of glycerine. Since the recovery of glycerine was lower (94-95%) than that of the 2 glycols, the extraction procedure for samples high in glycerine may need to be examined. Nevertheless, the Referee concurs with the Associate Referee's recommendation that the method be adopted as official first action and also recommends continued study.

A continuation of the study of methods for tar and nicotine in cigarette smoke has shown that sample size (4 or 5 cigarettes) and the system for holding the cigarette in the filter holder (dam or sleeve) do not affect the results obtained. Precision obtained this

year is in close agreement with that reported last year, *JAOAC* 53, 659-672 (1970). In addition, the study showed that 2 filter pads may be pooled prior to water and nicotine analyses, thus reducing these analyses by one-half without materially affecting precision. In view of the consistent results obtained in 2 quite comprehensive studies, the Referee recommends adoption of the method as official first action with the option to pool filter pads for water and nicotine analyses.

Recommendations

It is recommended—

(1) That the following methods be adopted as official first action: the revised GLC method for humectants in tobacco and the method for tar and nicotine in cigarette smoke.

(2) That study be continued on all other topics.

This report of the General Referee was presented at the 84th Annual Meeting of the AOAC, Oct. 12-15, 1970, at Washington, D.C.

The recommendations of the General Referee were approved by Subcommittee A and were adopted by the Association, except that action on the method for tar and nicotine was held in abeyance. Detailed recommendations are given in the report of Subcommittee A, *JAOAC* 54, 385 (1971).